What is claimed is:

1. A method of identifying a bioagent associated with an act of biowarfare, terrorism or criminal activity comprising the steps of:

determining a first molecular mass of a first amplification product of a first bioagent identifying amplicon obtained from a sample taken at the scene of biowarfare, terrorism or criminal activity; and

comparing the first molecular mass to a second molecular mass of a second bioagent identifying amplicon, wherein both first and second bioagent identifying amplicons are correlative.

2. A method of claim 1 wherein the second molecular mass of the second bioagent identifying amplicon is indexed to a bioagent and contained in a database.

3. A method of claim 1 wherein a first base composition signature is determined from the first molecular mass of the first amplification product and wherein the first base composition signature is compared to a second base composition signature determined for the second bioagent identifying amplicon.

4. The method of claim 3 wherein the second base composition signature is indexed to a bioagent and contained in a database.

5. A method of claim 1 wherein the bioagent is a bacterium.

6. A method of claim 5 wherein the bacterium is *Bacillus anthracis, Brucella abortus, Brucella melitensis, Brucella suis, Burkholderia (Pseudomonas) mallei, Burkholderia (Pseudomonas) pseudomallei, Clostridium botulinum, Francisella tularensis, Yersinia pestis, Rickettsiae, Coxiella burnetii, Rickettsia prowazekii,* or *Rickettsia rickettsii.*

7. The method of claim 1 wherein the bioagent is a virus.

8. The method of claim 7 wherein the virus is Crimean-Congo hemorrhagic fever virus, Eastern Equine Encephalitis virus, Ebola virus, Equine Morbillivirus, Flexal virus, Guanarito virus, Hantaan or other Hanta viruses, Junin virus, Lassa fever virus, Machupo virus,

Marburg virus, Omsk hemorrhagic fever virus, Rift Valley fever virus, Russian Spring-Summer encephalitis virus, Sabia virus, Tick-borne encephalitis complex viruses, Variola major virus (Smallpox virus), Venezuelan Equine Encephalitis virus, or Yellow fever virus.

9. The method of claim 1 wherein the bioagent is a fungus.

10. The method of claim 9 wherein the fungus is *Coccidioides immitis*.

11. The method of claim 10 wherein the bioagent is a toxin.

12. The method of claim 11 wherein the toxin is abrin, aflatoxins, *Botulinum* toxins, *Clostridium perfringens* epsilon toxin, conotoxins, diacetoxyscirpenol, ricin, saxitoxin, shigatoxin, *Staphylococcal* enterotoxins, Tetrodotoxin, or T-2 toxin.

13. A forensic method for tracking the geographic location of a bioagent associated with an act of biowarfare comprising the steps of:

determining a first molecular mass of a first amplification product of a first bioagent identifying amplicon from a forensic sample obtained from a geographic location; and

comparing the first molecular mass to a second molecular mass of a second bioagent identifying amplicon, wherein both first and second bioagent identifying amplicons are correlative, wherein a match between the first molecular mass and the second molecular mass indicates at least transient presence of the bioagent associated with an act of biowarfare at the geographic location.

14. A method of genotyping a bioagent comprising the steps of:

determining a first molecular mass of a first amplification product of a first bioagent identifying amplicon that contains genotyping information; and

comparing the first molecular mass to a second molecular mass of a second bioagent identifying amplicon that contains genotyping information, wherein the first and second bioagent identifying amplicons are correlative, and wherein a match between the first molecular mass and the second molecular mass identifies a genotype of the bioagent.

15. The method of claim 14 wherein the genotyping information comprises a single nucleotide polymorphism.

16. The method of claim 14 wherein the genotyping information comprises a variable number tandem repeat (VNTR).

17. A method of claim 14 wherein the genotyping information comprises a pathogenicity factor.

18. A method of claim 17 wherein the pathogenicity factor is a pathogenicity island, a virulence marker, or a toxin component.

19. A method of claim 18 which is used to detect a genetic engineering event.

20. A method of claim 14 wherein the second molecular mass of the second bioagent identifying amplicon that contains genotyping information is indexed to a genotype and contained in a database.

21. A method of claim 14 wherein a first base composition signature is determined from the first molecular mass of the first amplification product and wherein the first base composition signature is compared to a second base composition signature determined for the second bioagent identifying amplicon.

22. A method of claim 21 wherein the second base composition signature is indexed to a genotype and contained in a database.

23. A method of tracking a known or suspected terrorist or criminal comprising the steps of:

determining a first molecular mass of a first amplification product of a first bioagent identifying amplicon containing microbial geographic profiling information from a forensic sample known to be associated with the terrorist or criminal; and

comparing the first molecular mass to a second molecular mass of a second bioagent identifying amplicon wherein the second bioagent identifying amplicon contains microbial

geographic profiling information, wherein both first and second bioagent identifying amplicons are correlative, and wherein a match between the first molecular mass and the second molecular mass indicates at least transient presence of the known or suspected criminal at a geographic location indicated by the microbial geographic profiling information.

24. A method of claim 23 wherein the second molecular mass of the second bioagent identifying amplicon is indexed to a bioagent and contained in a database.

25. The method of claim 24 wherein the second molecular mass of the second bioagent identifying amplicon is indexed to microbial geographic profiling information and contained in a database.

26. A method of claim 23 wherein a first base composition signature is determined from the first molecular mass of the first amplification product and wherein the first base composition signature is compared to a second base composition signature determined for the second bioagent identifying amplicon.

27. The method of claim 26 wherein the second base composition signature is indexed to a bioagent and contained in a database.

28. The method of claim 27 wherein the second base composition signature is indexed to microbial geographic profiling information and contained in a database.